

<sup>48</sup>Ti(<sup>3</sup>He, $\alpha$ ) 1978Fo34,1970Ra29

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 108, 923 (2007)	20-Feb-2007

1970Ra29: E=13.0 MeV. Measured  $\sigma(\theta)$ . Energy resolution=30 keV. DWBA.

1978Fo34: E=25 MeV. See <sup>48</sup>Ca(<sup>3</sup>He, $\alpha$ ),(pol <sup>3</sup>He, $\alpha$ ) for details. DWBA.

All data are from 1978Fo34, except as noted. The measurements of the two groups are in good agreement.

<sup>47</sup>Ti Levels

E(level)	J $\pi^\dagger$	L $^\ddagger$	C <sup>2</sup> S $^\ddagger$	Comments
0.0	5/2 <sup>-</sup>	3	0.19,0.22	
159 20	7/2 <sup>-</sup>	3	3.22,3.73	
1566 20	3/2 <sup>-</sup>	(1)	0.33,0.37	
1788? 20				From 1970Ra29. Not reported by 1978Fo34.
1813 20	3/2 <sup>+</sup>	2	1.51,1.83	
2157 20	3/2 <sup>-</sup>	1	0.06,0.07	Not reported by 1970Ra29.
2358 20	1/2 <sup>+</sup>	0	0.78,0.90	
2616 20	7/2 <sup>-</sup>	3	0.12,0.14	
2813 20	5/2 <sup>-</sup>	3	0.50,0.58	
3220 20	7/2 <sup>-</sup>	3	0.48,0.55	
3558? 30		(3,2)	0.19,0.32	From 1970Ra29; not reported by 1978Fo34. C <sup>2</sup> S values correspond to the two L-values, respectively.
7.34×10 <sup>3</sup> 2	7/2 <sup>-</sup> #	3	0.55,0.48	T=5/2 Additional information 1.
8.14×10 <sup>3</sup> 2	(3/2) <sup>+</sup> #	2@	1.13,0.79	T=5/2
8.78×10 <sup>3</sup> 2	1/2 <sup>+</sup> #	0@	0.36,0.25	T=5/2

<sup>†</sup> Assumed for extraction of C<sup>2</sup>S.

<sup>‡</sup> From DWBA analysis. The first C<sup>2</sup>S value is based on the separation-energy method; the second, on an isospin-dependent potential.

# Isobaric analog states of <sup>47</sup>Sc g.s., 7/2<sup>-</sup>, 767, (3/2)<sup>+</sup>, and 1391, 1/2<sup>+</sup>, respectively.

@ From 1970Ra29. Used by 1978Fo34 to obtain C<sup>2</sup>S from  $\sigma(5^\circ)$ .